federal register

WEDNESDAY, AUGUST 28, 1974

WASHINGTON, D.C.

Volume 39 ■ Number 168

PART II

ENVIRONMENTAL PROTECTION AGENCY

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MEAT PRODUCTS POINT SOURCE CATEGORY

Small Processor Subcategory; Effluent Limitations and Guidelines

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 432]

[FRL-254-3]

MEAT PRODUCTS POINT SOURCE CATEGORY

Standards of Performance Applicable to New Sources for the Small Processor Subcategory

Notice is hereby given that effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA). On February 28, 1974, EPA promulgated a regulation adding Part 432 to Chapter 40 of the Code of Federal Regulations (39 FR 7894). That regulation established effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources for the meat products point source category. The regulation proposed below will amend 40 CFR Part 432—meat products point source category by adding thereto the small processor subcategory (Subpart E), meat cutter subcategory (Subpart F), sausage and luncheon meat processor subcategory (Subpart G), ham processor subcategory (Subpart H), canned meats processor subcategory (Subpart I), and the renderer subcategory (Subpart J) pursuant to sections 301, 304 (b) and (c), 306(b) and 307(c) of the Federal Water Pollution Control Act as amended 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500) (the Act).

(a) Legal authority.

(1) Existing point sources.

Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) to the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulation proposed herein sets forth effluent limitations and guidelines, pursuant to sections 301 and 304(b) of the Act, for the small processor subcategory (Subpart E), meat cutter subcategory (Subpart F), sausage and luncheon meat processor subcategory (Subpart G), ham processor subcategory (Subpart H), canned meats processor subcategory (Subpart I), and the renderer subcategory (Subpart J) of the meat products point source category.

(2) New sources.

Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b)(1)(B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306(b)(1)(A) of the Act. The Administrator published in the FEDERAL REGISTER of January 16, 1973 (38 FR 1624) a list of 27 source categories, including the meat products category. The regulations proposed herein set forth the standards of performance applicable to new sources for the small processor subcategory (Subpart E), meat cutter subcategory (Subpart F), sausage and luncheon meat processor subcategory (Subpart G), ham processor subcategory (Subpart H), canned meats processor subcategory (Subpart I), and the renderer subcategory (Subpart J) of the meat products point source category.

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 432.56, 432.66, 432.76, 432.86, 432.96 and 432.106, proposed below, provide pretreatment standards for new sources within the small processor subcategory (Subpart E), meat cutter subcategory (Subpart F), sausage and luncheon meat processor subcategory (Subpart G), ham processor subcategory (Subpart H), canned meats processor subcategory (Subpart I), and the renderer subcategory (Subpart J) of the meat products point source category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The reports or "Development Documents" referred to below provide, pursuant to section 304(c) of the Act, information on such processes, procedures or operating methods.

(b) Summary and Basis of Proposed Effluent Limitations Guidelines for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources.

(1) General methodology.

The effluent limitations, guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of the source, flow and volume of water used in the process employed, the sources of waste and waste waters in the operation and the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations and standards of performance were identified.

The control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which are existent or capable of being designed for each segment. It also included an identification of, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and reliability of each treatment and control technology were also identified. In addition, the non-water quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation were identified. The energy requirements of each control and treatment technology were determined as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available," "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors were considered. These included the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included EPA permit applications, EPA sampling and inspections, consultant reports, and industry submissions.

The pretreatment standards proposed herein are intended to be complementary to the pretreatment standards proposed for existing sources under 40 CFR Part 128. The basis for such standards is set forth in the FEDERAL REGISTER of July 19, 1973, 38 FR 19236. The provisions of Part 128 are equally applicable to sources which would constitute "new sources," under section 306 if they were to discharge pollutants directly to navigable waters, except for section 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards proposed herein apply to new sources, sections 432.56, 432.66, 432.76, 432.86, 432.96 and 432.106 below amend section 128.133 to specify the application of the standard of performance for new sources rather than the "best practicable" standards applicable to existing sources under sections 301 and 304(b) of the Act.

(2) Summary of conclusions with respect to the small processor subcategory (Subpart E), meat cutter subcategory (Subpart F), sausage and luncheon meat processor subcategory (Subpart G), ham processor subcategory (Subpart H), canned meats processor subcategory (Subpart I), and the renderer subcategory (Subpart J) of the meat products point source category.

(i) Categorization. As is discussed in detail in the Development Documents cited below, these segments of the meat products industry were derived following analyses of a number of factors. Among these factors were type of raw material, waste characteristics, final product, production process, and age and size of plants. The six subcategories discussed herein as a group represent those operations which process meat products but do not slaughter animals at the site. Any given plant will thus be accomplishing the processing or rendering of meat products or by-products in a manner identical or similar to these procedures at a slaughterhouse or packinghouse where animals are slaughtered.

In spite of the close relationship with production procedures encountered in the slaughterhouse and packinghouse operations, the meat processing plants and the rendering plants carry out processes which are mutually exclusive from each other. As a consequence, each is discussed in a separate report to assure that adequate details are presented with regard to analyses in establishing effluent limitations, standards of performance, and pretreatment standards. Also note that while the renderer operation described below may process raw materials from poultry sources, none of the meat processor subcategories involve poultry processing. A separate and distinct analysis of the poultry slaughtering and eviscerating (dressing) segment is underway, which will also include rendering accomplished "on site" by the poultry dressing or processing operation.

With regard to the factors for consideration in deriving subcategories, the various meat processing plants may be discretely segmented on the basis of differences in raw waste water characteristics primarily due to a combination of differences in finished products, manufacturing processes and size of plant. Analyses with respect to the factors of raw materials, age, and location of plants provided a secondary means for substantiating the selected subcategories. Accordingly, the meat processor segment of the meat products industry was subcategorized as follows: (1) Small processor (Subpart E), (2) meat cutter (Subpart F), (3) sausage and luncheon meat processor (Subpart G), (4) ham processor (Subpart H), and canned meats processor (Subpart I). The nomenclature of each of the subcategories is reasonably mutually exclusive, e.g., small processors produce up to 2730 kilograms (6000 pounds) of any of a number of products per day such as fresh meat cuts, sausage, smoked products, luncheon meats, etc. The other subcategories, perhaps termed as large processors with more than 2730 kg/day, are similarly discrete. Meat cutters accomplish boning and cutting (sometimes called fabricating) of whole, half or partial fresh carcasses of all types of cattle, sheep, or swine into steaks, roasts, and other fresh meat cuts. Sausage and luncheon meat processors produce a greater variety of products which may include fresh cuts but primarily consists of ground and mixed products, smoked products such as bacon, frankfurters, bologna or sausage. Ham processors may produce only cured hams, but usually produce a substantial variety of products such as fresh meat cuts, luncheon meats, sausage, bacon and smoked or cured hams. Canned meats processor plants may produce canned meat products only, but usually produce a complete line of products such as canned meats, stew, bacon, hams, luncheon meats, sausage, and fresh meat cuts.

A companion analysis of rendering plants (often termed as "offsite" or "independent" renderers with respect to complete separation from "on-site" activities in slaughterhouses and packinghouses) disclosed a single discrete category for all sizes and types of rendering operations. Even though ranges in raw waste water characteristics were encountered, analyses of production process (batch versus continuous cooker), size, type of raw material and other factors revealed readily discernible similarities between all types and classes of rendering plants. Hence, in view of the close relationships in all factors, a single subcategory for renderers was derived.

(ii) Waste characteristics. Regardless of distinct differences in source as discussed below, raw waste waters from all subcategories are readily amenable to measurement and characterization by the pollutant parameters biochemical oxygen demand, suspended solids, oil and grease, nutrients and coliform bacteria. As may be expected, these parameters are the same as those used to describe slaughterhouse and packinghouse wastes. Because of the protein, curing and bone substances in the source materials, raw waste waters also contain various forms of nitrogen and phosphorus and dissolved solids. None of the potentially harmful pollutants such as heavy metals are present in the raw wastes from either processors or renderers.

(iii) Origin of waste water pollutants. Raw waste water discharges from each of the subcategories contain meat and product residues, animal fats, and other residues normally discharged as a part of process or plant cleanup. Additional sources of raw waste specific to any given subcategory may include such discharges as pickling solutions (ham processors), can washing (canned meats), materials receiving drainage (rendering) or other characteristic process discharge.

The amount of residues or materials discharged is primarily a function of production process (e.g., renderers with continuous cooker systems tend to use less water per product unit than those with batch cookers) and in-plant housekeeping practices utilized before and during cleanup.

(iv) Treatment and control technology. Waste water treatment and control technologies have been studied for each subcategory of the industry to determine what is (a) the best practicable control technology currently available, (b) the best available technology economically achievable, and (c) the best available demonstrated control technology, processes, operating methods or other alternatives.

Specific technology currently being utilized by plants in all subcategories involves materials recovery (usually part of in-process primary treatment to recover usable by-product grease or solids) and biological treatment and control concepts. The treatment systems range from simple anaerobic-aerobic lagoon operations through an array of mechanically aerated modifications to the simple lagoons including activated sludge with extended aeration and final clarification. This range of technology was evaluated and all concepts were found to perform to achieve very high quality effluents. In addition to these biological methods, a number of control concepts resulting in no discharge of pollutants to navigable waters are in considerable use. Such practice appears to be the most common, if not the only, concept used by plants in the small processor subcategory. In these instances, very low rates of discharge (6700 liters or 800 gallons per day on the average) make a system such as a septic tank with drainfield, or a holding basin, a technically viable option at rather modest investment. Similarly, a wide range of plant sizes and types in the renderer subcategory are achieving no discharge using land irrigation of treated or partially stabilized waste

water, or evaporation basins. Since biological treatment with a discharge is also practiced by a number of rendering plants, the choice of "no discharge" systems appears to rest primarily on the apparent high feasibility of this option for many plant sites (i.e., land availability, cost, local pollution control requirements).

Except for the small processor subcategory for which the defined technology will result in no discharge of pollutants, best practicable control technology currently available (BPCTCA) is the biological treatment mode. For the various subcategories of meat processing plants this will involve anaerobic-aerobic lagoons, possibly with additional mechanical aeration. More capital intensive systems such as activated sludge treatment would achieve the same or better performance, and would thus be an option to BPCTCA. Plants in the rendering subcategory which do not discharge to municipal treatment systems but which currently achieve no discharge have already reached effluent controls beyond BPCTCA. For those rendering plants which do discharge to navigable waters, BPCTCA was found to be biological treatment using anaerobic-aerobic lagoons. Again, the addition of mechanical aeration to the treatment scheme may be helpful, or activated sludge treatment may be substituted for the lagoons. All three types of treatment are being utilized by rendering plants although the simple multi-chamber anaerobic-aerobic lagoon system clearly prevails.

Best available technology economically achievable (BATEA) is substantially the same for all subcategories (exept small processors for which BPCTCA is no discharge). Principal modifications to BPCTCA to achieve BATEA are in treatment and controls to remove the nutrient parameters phosphorus and ammonia. Further significant reductions in organic load and suspended solids would also be required. The nutrient controls are not now being practiced by plants in the subcategories; rather, the technology is defined on the basis of substantial experience on municipal wastes (phosphorus precipitation), and reasonably well documented success on ammonia control (air stripping and related concepts in the petroleum refining industry). Reductions in the organic load (expressed as BOD) and suspended solids are commensurate with levels being achieved by at least two plants in the industry segments discussed herein and are further in accord with performance for at least two other plants in the slaughterhouse/packinghouse segment of the meat industry.

With the exception of requirements to control ammonia in the rendering subcategory, best available demonstrated control technology (BADT) for new sources is the same as that described for BPCTCA for all subcategories. The biological treatment systems for the best rendering plants are already achieving the ammonia levels required; the addition of refined ammonia control systems would not appear to be necessary. At most, the addition of mechanical aeration to an otherwise total lagoon system may be contemplated.

The lack of sufficient data on ammonia precludes a similar requirement for any plants in the meat processor subcategories. However, data that are available show that ammonia is generally low in discharges from these plants.

While not of great concern in this industry, solid waste control must be given some consideration. Best practicable control technology and best available control technology as they are known today require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In most cases these are non-hazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long-term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate legal and mechanical precautions (e.g., impervious liners) should be taken to ensure long-term protection to the environment from hazardous materials. Where appropriate, the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of legal jurisdiction.

(v) Cost estimates for control of waste water pollutants. Total investment cost to the plants within all subcategories for achieving limitations for best practicable control technology currently available is estimated to range between $3.0 and $5.0 million. Costs per individual plant will range from less than $10.0 thousand for all subcategories of meat processors to $55.0 thousand for large rendering plants. Such costs are to be considered incremental to previous outlays since no information is available to indicate that any plants are discharging raw wastes; rather, all plants that are discharging have some type of treatment in place. Thus, the per-plant costs reflect estimates of capital expenses required to improve these existing facilities. In some cases this cost will be effectively zero since housekeeping and operational improvements may resolve any difficulty without capital expenditures.

(vi) Energy requirements and non-water quality environmental impacts. Incremental increases in energy consumption for meeting BPCTCA is estimated to be less than 0.1 percent of total energy consumption for rendering plants and about 1.4 percent for meat processor plants.

Any sludges requiring ultimate disposal in landfills would be compatible organic nutrient sources, and readily managed. Odor problems of any significance could not be identified.

(vii) Economic impact analysis. Pollution control costs to the meat processing segment amount to 5.0 to 7.0 percent of the average annual capital expenditures (about $40.0 million) for the period 1963–1973. Large meat processors alone accounted for about the same amount in capital expenditure during 1973 which industry trend toward integrated slaughterhouses and packinghouse operations and larger processing plants. As a result of this trend, and the overwhelming relative number of plants using municipal treatment facilities, significant adverse economic impact on this segment is not foreseen. However, approximately 16 out of an estimated 376 plants in the size category of 6000–40,000 lbs. per day of final product are believed to be susceptible to closure due to the requirements for BPCTCA, and up to 23 additional plants in this size range may be endangered by BATEA requirements. The latter estimate is highly conservative since requirements for denitrification of effluents (nitrate limitations) have been deleted, because the costs of denitrification constituted a disproportionate amount (40.0 percent) of the original total cost estimates.

Rendering plants may expect a similar level of pollution control costs (7.0 to 10 percent) related to average annual capital expenditures. The industry has already made substantial commitments and progress in pollution control including air quality controls. Economic projections show that many small plants are susceptible to closure due to market conditions, but the trend may be accelerated by BPT limitations. Some 40 to 60 small plants are potentially susceptible to closure but at least 3 small plants are known to be achieving the limitations, and a number of others (19 identified to date) have applied for, or received, EPA discharge permits implying that treatment or control systems are, or soon will be, in place. Forty-five percent of all small plants, about 80 to 90 of 210, are achieving no discharge of pollutants; another 20 percent or more discharge to municipal systems. Potential implications for public health, i.e., disposal of dead animals if a local rendering plant is forced to close, would be the prime concern beyond any loss in overall by-product productivity or employment. Even in the instance of public health, however, a review of the geographical distribution of a substantial portion of the total of 450 plants in the industry reveals the likelihood that larger plants are located in a way which would result in the absorption of the inputs to closed plants. However, in some localized instances the services of picking up dead animals may be disrupted or reduced; at the same time burial or landfill disposal may be a practical alternative.

The reports entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Meat Processor Segment of the Meat Products Point Source Category" and "Develop-

ment Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Renderer Segment of the Meat Products Point Source Category" detail the analysis undertaken in support of the regulation being proposed herein and are available for inspection in the EPA Information Center, Room 227, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. Supplementary analyses prepared for EPA of the possible economic effects of the proposed regulation are also available for inspection at these locations. Copies of these documents are being sent to persons or institutions affected by the proposed regulation, or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional limited number of copies of all reports are available. Persons wishing to obtain a copy may write the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman.

On June 14, 1973, the Agency published procedures designed to insure that, when certain major standards, regulations, and guidelines are proposed, an explanation of their basis, purpose and environmental effects is made available to the public (38 FR 15653). The procedures are applicable to major standards, regulations and guidelines which are proposed on or after December 31, 1973, and which prescribe national standards of environmental quality or require national emission, effluent or performance standards and limitations.

The Agency determined to implement these procedures in order to insure that the public was apprized of the environmental effects of its major standards setting actions and was provided with detailed background information to assist it in commenting on the merits of a proposed action. In brief, the procedures call for the Agency to make public the information available to it delineating the major nonenvironmental factors affecting the decision, and to explain the viable options available to it and the reasons for the option selected.

The procedures contemplate publication of this information in the FEDERAL REGISTER, where this is practicable. They provide, however, that where, because of the length of these materials, such publication is impracticable, the material may be made available in an alternate format.

The reports entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Meat Processor Segments of the Meat Products Point Source Category" and "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Renderer Segment of the Meat Products Point Source Category" contain information available to the Agency concerning the major environmental effects of the regulation proposed below, including: (1) The pollutants presently discharged into the Nation's waterways by manufacturers of processed meat products or by-products and the degree of pollution reduction obtainable from implementation of the proposed guidelines and standards (see particularly Sections IV, V, VI, IX, X, and XI); (2) The anticipated effects of the proposed regulation on other aspects of the environment including air, solid waste disposal and land use, and noise (see particularly Section VIII); and (3) Options available to the Agency in developing the proposed regulatory system and the reasons for its selecting the particular levels of effluent reduction which are proposed (see particularly Sections VI, VII, and VIII).

The supplementary reports entitled "Economic Analysis of Proposed Effluent Guidelines MEAT PROCESSING INDUSTRY", and "Economic Analysis of Proposed Effluent Guidelines INDEPENDENT RENDERING INDUSTRY" contain estimates of the cost of pollution control requirements and an analysis of the possible effects of the proposed regulation on prices, production levels, employment, communities in which meat processing or rendering plants are located, and international trade. In addition, the Development Documents describe, in Section VIII, the cost and energy consumption implications of the proposed regulations.

The four reports described above in the aggregate exceed 600 pages in length and contain a substantial number of charts, diagrams, and tables. It is clearly impracticable to publish the material contained in these documents in the FEDERAL REGISTER. To the extent possible, significant aspects of the material have been presented in summary form in foregoing portions of this preamble. Additional discussion is contained in the following analysis of comments received and the Agency's response to them. As has been indicated, the documents are available for inspection at the Agency's Washington, D.C. and regional offices and at State water pollution control agency offices. Copies of each have been distributed to persons and institutions affected by the proposed regulations or who have placed themselves on a mailing list for this purpose. Finally, so long as the supply remains available, additional copies may be obtained from the Agency as described above.

When this regulation is promulgated, revised copies of the Development Documents will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the Economic Analysis will be available through the National Technical Information Service, Springfield, Virginia 22151.

(c) Summary of public participation.

Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations, guidelines and standards proposed for the meat products point source category. All participating agencies have been informed of project developments. Initial drafts of the Development Documents were sent to all participants and comments were solicited on those reports. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies; (3) other public agencies, interest groups, and associations: Ohio River Valley Sanitation Commission; Delaware River Basin Commission; U.S. Department of the Interior; U.S. Department of Commerce; U.S. Department of Health, Education, and Welfare; Water Resources Council; U.S. Department of Agriculture; The Conservation Foundation; Environmental Defense Fund, Inc.; Natural Resources Defense Council; American Society of Civil Engineers; Water Pollution Control Federation; National Wildlife Federation; American Institute of Chemical Engineers; National Independent Meat Packers Association; American Association of Meat Processors; American Meat Institute, and National Renderers Association.

The following responded with comments: State of Kentucky; American Institute of Chemical Engineers; American Association of Meat Processors; Carver-Greenfield Corporation; State of Michigan; State of Nebraska; Water Resources Council; State of Indiana; State of Minnesota; State of North Carolina; State of New York; National Renderers Association; American Meat Institute; U.S. Department of the Interior; State of Wisconsin; and Delaware River Basin Commission.

The primary issues raised in the development of the proposed effluent limitations guidelines and standards of performance and the treatment of these issues herein are as follows:

(1) A common criticism was that the costs of achieving the various levels of effluent control, particularly the cost of meeting best practicable control technology currently available, were underestimated.

A rather detailed evaluation of cost information developed in the course of the study of these industry segments reveals the cost estimates to be generally valid and representative of "typical" conditions. In this regard, an additional item of discussion on so-called "batch" rendering plants covering costs for achieving BPCTCA is being prepared for subsequent inclusion in the Development Document in recognition of certain distinctions from "continuous" rendering plants. Sufficient data are not available for ascertaining the degree to which the costs for specific plan conditions may diverge from the average costs. However, such divergence in the extreme would appear unlikely, except for very unusual circumstances, since the technical profile of the "typical" plants in each subcategory as described in the Development Documents appear quite representative of the production, raw waste, effluent treatment and other salient fea-

tures of the industry. Nevertheless, the available data is somewhat limited in scope; consequently, the Agency wishes to encourage the submission of any specific itemized cost data and related information for existing plants in any subcategories to add to present information regarding cost profiles and cost impact.

(2) A number of comments expressed concern that data gathered and utilized for the study was not properly manipulated or analyzed to reflect the true characteristics of the industry segments as portrayed by that data.

With relatively minor changes found to be required, all data received and summarized in the Development Documents accurately reflect all appropriate statistics and characteristics as reported in the questionnaires, on-site sampling reports, EPA permit records, state pollution control records, and literature sources utilized in these studies. As a matter of clarification, it should be explained that while any and all available data were used in some manner, the preponderance of information used to characterize subcategories originated from primary sources (i.e., questionnaire data from the industry, pollution control reports from state agencies, etc.) which were considered to generally reflect more typical conditions for a given plant. Another primary source, field sampling and site visit data, was used foremost to verify general validity of other primary data, but was also used as a specific data entry for tabular or descriptive information if no other primary source of such data existed. Secondary sources such as published literature were used only as background information that would bear upon discussions of subcategories, waste characteristics, and limitations.

(3) A substantial number of comments reflected general concurrence in the suggested limitations, but some reservations regarding the efficacy of complete nutrient controls, particularly nitrates, Kjeldahl nitrogen and phosphorus using best available technology economically achievable.

While limited additional information has been made available, treatment concepts which would achieve control of nitrates and Kjeldahl nitrogen are poorly defined as to reliable capability and costs. The Agency agrees that limitations based upon denitrification technology may be subject to significant variability in practice when such technology is utilized; requirements for denitrification (i.e., the removal of nitrates, nitrites, and Kjeldahl nitrogen) have been removed from recommended regulations at this time. On the other hand, chemical precipitation of phosphorus is a well established technical concept. Even though phosphorus control has not been specifically practiced by meat processors or renderers, there is no evidence that the controls could not be applied with great success. Moreover, the ability to maximize in-plant controls and housekeeping procedures is a viable option to minimize sources of phosphorus in the raw waste waters and reduce or eliminate specific treatment requirements.

(4) The criticism was made that plants in the small processor subcategory should not be required to achieve "no discharge" when all larger plants were allowed to discharge under BPCTCA.

Of the nearly 100 small plants providing information to the study, 90 percent discharged to municipal treatment systems; all plants not using municipal facilities already achieved no discharge using septic tanks with subsurface drainfields, or a holding basin. No information was available to indicate that either biological treatment of the type used by larger plants was practiced or that such treatment would represent a cost effective option to plants of this size.

(5) The comment was made that the economic impact of BPCTCA limitations would be unusually severe for all small renderers who presently discharge partially treated process waste waters to navigable waters.

As discussed above in subsection vii, "Economic impact analysis", the Agency disagrees that all small plants will close or otherwise be substantially affected by limitations based upon BPCTCA. At the same time, the Agency fully recognizes that a significant portion of the small plants are of marginal economic viability, and would necessarily be confronted by the need for some additional capital expenditures to meet the requirements imposed by BPCTCA. It is also recognized that the potential disruption of rendering services on local rural areas if plants do close is worthy of consideration. While the available data upon which a final decision could be based is quite limited, tentative consideration is being given to exempting any renderer which processes up to 75,000 pounds of raw materials per day from requirements of BPCTCA. Submission of definitive information in support of, or opposition to, this consideration is encouraged by the Agency, particularly as to number of affected plants, types of treatment used by affected plants, specific waste discharge data, information on small plants already meeting BPCTCA (including "no discharge" technology) or related information.

(6) The comment was made that the meat cutter subcategory may affect plants in both manufacturing (SIC 2013) and wholesale trade (SIC 5147), as designated in the *Standard Industrial Classification Manual*, Office of Management and Budget, 1972.

The Agency agrees that some overlap in SIC code designation may develop for a given meat cutter operation. It should be emphasized that the subcategory was derived on the basis of technical consistencies; whereas, the SIC code is primarily a commercial and economic profile designation. The intent is to deal explicitly with the production concepts characteristic of a meat cutter without expressed regard for the ultimate disposition of final products, i.e., whether retail or wholesale. For the purposes of the meat cutter subcategory, the description common to the meat industry is "fabricator" (a manufacturer of fresh meat cuts) who may sell products to distributors, institutional buyers, and the like. The more classical "butcher shop" distributor, grocery stores or other retail trade operations are not covered by the subcategory.

(7) One commenter raised a question about the economic feasibility of the proposed guideline for processors in the 6,000 to 40,000 lbs. per day of final product size range, pointing out that the economic analysis indicated that over 40 percent of the direct dischargers in this group could be forced to close by the 1977 requirements and that all of the remaining direct dischargers in the group could be forced to close by 1983.

The commenter is correct in that the analysis indicates that direct dischargers in the size range are disproportionately impacted by the guidelines. This is true, partially because of their existing low project margins as compared with those of larger plants, and partially because of minimum technology costs which produce higher per unit effluent control costs for this group than for larger plants. However, since the estimated closures are based on the analysis of one representative (model) plant in that size range, there is reason to believe that not all of the plants in that group would be impacted to the same degree and that all of them may not in reality be forced to close. This will be especially true if the plants have access to less expensive treatment technologies such as spray irrigation or septic fields, or if it can be determined that significant levels of control are already in place. The Agency encourages the submission of information in this regard and will continue to study the problem. Consideration will be given to an appropriate modification to the requirements for these plants prior to promulgation of the guidelines.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman. Comments on all aspects of the proposed regulation are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data are essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing an effluent limitations guideline or standard of performance, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301, 304(b), 306 and 307 of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street SW., Washington, D.C. A copy of preliminary draft contractor reports,

the Development Documents and economic studies referred to above, and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received on or before September 27, 1974 will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202). In consideration of the foregoing, 40 CFR Part 432 is hereby proposed to be amended as follows.

Date: August 9, 1974.

JOHN QUARLES,
Acting Administrator.

PART 432—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES FOR THE MEAT PRODUCTS POINT SOURCE CATEGORY

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Subpart E—Small Processor Subcategory

§ 432.50 Applicability; description of the small processor subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of finished meat products such as fresh meat cuts, smoked products, canned products, hams, sausages, luncheon meats, or similar products by a small processor.

§ 432.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "small processor" shall mean an operation that produces up to 2730 kg (6000 lb) per day of any type or combination of finished products.

(c) The term "finished product" shall mean the final manufactured product as fresh meat cuts, hams, bacon or other smoked meats, sausage, luncheon meats, stew, canned meats or related products.

§ 432.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

§ 432.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 432.54 [Reserved]

§ 432.55 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 432.56 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the small processor subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.15; *Provided*, that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.55 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

Subpart F—Meat Cutter Subcategory

§ 432.60 Applicability; description of the meat cutter subcategory.

The provisions of this subpart are applicable to discharges resulting from the fabrication or manufacture of fresh meat cuts such as steaks, roasts, chops, etc. by a meat cutter.

§ 432.61 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "meat cutter" shall mean an operation which fabricates, cuts, or otherwise produces fresh meat cuts and related finished products from livestock carcasses, at rates greater than 2730 kg (6000 lb) per day.

(c) The term "finished product" shall means the final manufactured product as fresh meat cuts including, but not limited to, steaks, roasts, chops, or boneless meats.

§ 432.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.030	0.015
TSS	0.036	0.018
Oil and grease	0.012	0.006
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.030	0.015
TSS	0.036	0.018
Oil and grease	0.012	0.006
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.018	0.009
TSS	0.024	0.012
Oil and grease	0.012	0.006
(English units) lb/1000 lb of finished product		
BOD5	0.018	0.009
TSS	0.024	0.012
Oil and grease	0.012	0.006
Milligrams per liter—effluent		
Ammonia	8.0	4.0
Phosphorus	4.0	2.0
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.64 Reserved.

§ 432.65 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of

pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.030	0.015
TSS	0.036	0.018
Oil and grease	0.012	0.006
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.030	0.015
TSS	0.036	0.018
Oil and grease	0.012	0.006
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.66 Pretreatment standards for new sources.

(a) The pretreatment standards under section 307(c) of the Act for a source within the meat cutter subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.65; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

(b) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.65 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

Subpart G—Sausage and Luncheon Meat Processor

§ 432.70 Applicability; description of the sausage and luncheon meat processor subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of fresh meat cuts, sausage, bologna, and other luncheon meats by a sausage and luncheon meat processor.

§ 432.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "sausage and luncheon meat processor" shall mean an operation which cuts fresh meats, grinds, mixes, seasons, smokes or otherwise produces finished products such as sausage, bologna and luncheon meats at rates greater than 2730 kg (6,000 lb) per day.

(c) The term "finished product" shall mean the final manufactured product as fresh meat cuts including steaks, roasts, chops or boneless meat, bacon or other smoked meats except hams, sausage, bologna or other luncheon meats, or related products.

§ 432.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.48	0.24
TSS	0.58	0.29
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.48	0.24
TSS	0.58	0.29
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of dail values for thirtyy consecutive days shall not exceed
(Metric units)	kg/kkg of finished product	
BOD5	0.28	0.14
TSS	0.38	0.19
Oil and grease	0.20	0.10
(English units)	lb/1000 lb of finished product	
BOD5	0.28	0.14
TSS	0.38	0.19
Oil and grease	0.20	0.10
Milligrams per liter—effluent		
Ammonia	8.0	4.0
Phosphorus	4.0	2.0
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.74 [Reserved]

§ 432.75 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.48	0.24
TSS	0.58	0.29
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.48	0.24
TSS	0.58	0.29
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.76 Pretreatment standards for new sources.

(a) The pretreatment standards under section 307(c) of the Act for a source within the sausage and luncheon meat processor subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.75: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

(b) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.75 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

Subpart H—Ham Processor Subcategory

§ 432.80 Applicability; description of the ham processor subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of hams alone or in combination with other finished products by a ham processor.

§ 432.81 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "ham processor" shall mean an operation which manufactures hams alone or in combination with other finished products at rates greater than 2730 kg (6000 lb) per day.

(c) The term "finished products" shall mean the final manufactured product as fresh meat cuts including steaks, roasts, chops or boneless meat, smoked or cured hams, bacon or other smoked meats, sausage, bologna or other luncheon meats.

§ 432.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.54	0.27
TSS	0.64	0.32
Oil and grease	0.22	0.11
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.54	0.27
TSS	0.64	0.32
Oil and grease	0.22	0.11
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.32	0.16
TSS	0.42	0.21
Oil and grease	0.22	0.11
(English units) lb/1000 lb of finished product		
BOD5	0.32	0.16
TSS	0.42	0.21
Oil and grease	0.22	0.11
Milligrams per liter—effluent		
Ammonia	8.0	4.0
Phosphorus	4.0	2.0
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.84 [Reserved.]

§ 432.85 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.54	0.27
TSS	0.64	0.32
Oil and grease	0.22	0.11
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.54	0.27
TSS	0.64	0.32
Oil and grease	0.22	0.11
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.86 Pretreatment standards for new sources.

(a) The pretreatment standards under section 307(c) of the Act for a source within the ham processor subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.85; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.85 above shall not apply and, subject to the provisions of 40 CFR 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

Subpart I—Canned Meats Processor Subcategory

§ 432.90 Applicability; description of the canned meats processor subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of canned meats alone or in combination with any other finished products, by a canned meats processor.

§ 432.91 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "canned meat processor" shall mean an operation which manufactures canned meats (such as stew, sandwich spreads, or other canned meats) alone or in combination with other finished products at rates greater than 2730 kg (6000 lb) per day.

(c) The term "finished products" shall mean the final manufactured product as fresh meat cuts including steaks, roasts, chops or boneless meat, hams, bacon or other smoked meats, sausage, bologna or other luncheon meats, stews, sandwich spreads or other canned meats.

§ 432.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.66	0.33
TSS	0.80	0.40
Oil and grease	0.26	0.13
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.66	0.33
TSS	0.80	0.40
Oil and grease	0.26	0.13
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.34	0.17
TSS	0.44	0.22
Oil and grease	0.26	0.13
(English units) lb/1000 lb of finished product		
BOD5	0.34	0.17
TSS	0.44	0.22
Oil and grease	0.26	0.13
Milligrams per liter—effluent		
Ammonia	8.0	4.0
Phosphorus	4.0	2.0
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.94 [Reserved.]

§ 432.95 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of finished product		
BOD5	0.66	0.33
TSS	0.80	0.40
Oil and grease	0.26	0.13
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of finished product		
BOD5	0.66	0.33
TSS	0.80	0.40
Oil and grease	0.26	0.13
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

§ 432.96 Pretreatment standards for new sources.

(a) The pretreatment standards under section 307(c) of the Act for a source within the canned meats processor subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.95; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

(b) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.95 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

Subpart J—Renderer Subcategory

§ 432.100 Applicability; description of the renderer subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of meat meal, dried animal by-product residues (tankage), animal oils, grease and tallow, perhaps including hide curing, by a renderer.

§ 432.101 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "renderer" shall mean an independent or off-site rendering operation, conducted separate from a slaughterhouse, packinghouse or poultry dressing or processing plant, which manufactures meat meal, tankage, animal oils, grease, and tallow, and may cure cattle hides, but excluding marine oils, fish meal, and fish oils.

(c) The term "tankage" shall mean dried animal by-product residues used in feedstuffs.

(d) The term "tallow" shall mean a product made from beef cattle or sheep fat that has a melting point of 40° C. or greater.

(e) The term "raw material" or as abbreviated herein, "RM" shall mean the basic input materials to a rendered composed of animal and poultry trimmings, bones, meat scraps, dead animals, feathers and related usable by-products.

§ 432.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

Subject to the provisions of subparagraph (b), the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kg of raw material		
BOD5	0.30	0.15
TSS	0.40	0.20
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	
(English units) lb/1000 lb of raw material		
BOD5	0.30	0.15
TSS	0.40	0.20
Oil and grease	0.20	0.10
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

(a) The limitations given in paragraph (a) for BOD5 and TSS are derived for a

renderer which does no cattle hide curing as part of the plant activities. If a renderer does conduct hide curing, the following empirical formulas should be used to derive an additive adjustment to the effluent limitations for BOD5 and TSS.

$$\text{BOD}\delta \text{ Adjustment (kg/kkg RM)} = \frac{8.0 \times \text{(number of hides)}}{\text{kg of raw material}}$$

$$\text{(lb/1000 lb RM)} = \frac{17.6 \times \text{(number of hides)}}{\text{lbs of raw material}}$$

$$\text{TSS Adjustment (kg/kkg RM)} = \frac{11.0 \times \text{(number of hides)}}{\text{kg of raw material}}$$

$$\text{(lb/1000 lb RM)} = \frac{24.2 \times \text{(number of hides)}}{\text{lbs of raw material}}$$

§ 432.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Subject to the provisions of paragraph (b), the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of raw material		
BODδ	0.14	0.07
TSS	0.20	0.10
Oil and grease	0.10	0.05
Ammonia	0.04	0.02
Phosphorus	0.10	0.05
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed
(English units) lb/1000 lb of raw material		
BODδ	0.14	0.07
TSS	0.20	0.10
Oil and grease	0.10	0.05
Ammonia	0.04	0.02
Phosphorus	0.10	0.05
pH	Within the range 6.0 to 9.0.	
Fecal coliforms	Maximum at any time 400 mpn/100 ml.	

(b) The limitations given in paragraph (a) for BOD5 and TSS are derived for a renderer which does no cattle hide curing as part of the plant activities. If a renderer does conduct hide curing, the following empirical formulas should be used to derive an additive adjustment to the effluent limitations for BOD5 and TSS.

$$\text{BOD}\delta \text{ Adjustment (kg/kkg RM)} = \frac{3.6 \times \text{(number of hides)}}{\text{kg of raw material}}$$

$$\text{(lb/1000 lb RM)} = \frac{7.9 \times \text{(number of hides)}}{\text{lbs of raw material}}$$

$$\text{TSS Adjustment (kg/kkg RM)} = \frac{6.2 \times \text{(number of hides)}}{\text{kg of raw material}}$$

$$\text{(lb/1000 lb RM)} = \frac{13.6 \times \text{(number of hides)}}{\text{lbs of raw material}}$$

§ 432.104 [Reserved]

§ 432.105 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: The limitations shall be as specified in § 432.102, with the exception that in addition to the pollutants or pollutant properties controlled by that subsection, discharges of ammonia shall not exceed the limitations set forth below:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed
(Metric units) kg/kkg of raw material		
Ammonia	0.34	0.17
(English units) lb/1000 lb of raw material		
Ammonia	0.34	0.17

§ 432.106 Pretreatment standards for new sources.

(a) The pretreatment standards under section 307(c) of the Act for a source within the renderer subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 432.105; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

(b) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133 as amended herein, the effluent standards set forth in 40 CFR 432.105 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

[FR Doc.74-19178 Filed 8-27-74;8:45 am]